



ASTM D149 TESTER

AC Dielectric Breakdown Tester

The 700-D149 Series of AC Dielectric Breakdown Testers represent a new level of sophistication, flexibility and accuracy in breakdown voltage testing. Each unit is equipped with a PLC-based control system that is internally programmed to perform the D149 short-time test, step-by-step test and slow rate-of-rise test. The unit can also be easily programmed to perform variations on these test sequences. The voltmeter circuit continually samples the waveform to determine the breakdown voltage with the highest accuracy. The operator can control all test parameters as required. At the conclusion of tests, all relevant parameters (minimum, maximum, mean, and standard deviation) for a series of tests on a sample are automatically calculated. Units are available from 30kV to 100kVac for a wide variety of applications.



750-2-D149 unit (pictured above) Example oil bath & test cell (pictured below)





FEATURES

- PLC-based control and measurement system
- Presets
- ☑ USB for data download
- ☑ Internally programmed to perform all D149 type tests
- Adjustable test parameter (voltage, time, over current, etc.)
- ☑ Built in safety cage with interlock door
- ☑ Adjustable current overload (10% ... 110%)
- Optional test fixtures and oil baths
- User Friendly Touch Screen

BENEFITS

Complete test solution

All metering performed by fast sensing circuitry

Tests performed with little or no operator intervention

Software calculates all test parameters and print out test reports

APPLICATIONS

- Films, Papers, Tapes, and Fabrics
- Polymeric molding and embedding compounds
- Ceramics, Porcelain, and Mica
- Sleeving, Tubes, Sheets, and Rods
- → Varnishes, Coatings, and Insulating fluids.
- → Filling Compounds
- Adhesives
- Rubber and Rubber Products











SYSTEM CONTROLS



TECHNICAL SPECIFICATIONS

Voltage Measurement Accuracy

| 730-2-D149-^-* | ± 5% of measured value, 0.6-30 kV |
|-----------------|-----------------------------------|
| 750-2-D149-^-* | ± 5% of measured value, 1-50 kV |
| 775-5-D149-^-B | ± 5% of measured value, 1.5-75 kV |
| 7100-5-D149-^-B | ± 5% of measured value, 2-100 kV |

| NET Dimensions | | |
|-----------------|-----------------|-------------------|
| 730-2-D149-^-* | 23 x 72 x 24 in | 58 x 183 x 61 cm |
| 750-2-D149-^-* | 23 x 72 x 24 in | 58 x 183 x 61 cm |
| 775-5-D149-^-B | 72 x 72 x 36 in | 183 x 183 x 91 cm |
| 7100-5-D149-^-B | 72 x 72 x 36 in | 183 x 183 x 91 cm |

- ^ Designate input frequency '5' for 50Hz input tor '6' for 60Hz input * Designate input voltage. 'A' for 120 V input or 'B' for 230 V input

Applicable Standards

ANSI D149 12.2.1 & 12.2.2

ADDITIONAL ACCESSORIES

| ADDEDI | | | |
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730-2-D149-^-* System output voltage:

- 6-30kV (Tap 1)

- 0.6-6kV (Tap 2)

System Output Current:

- 67mA

System output voltage:

- 10-50kV (Tap 1)

- 1-10kV (Tap 2)

System Output Current:

- 40mA

775-5-D149-^-B System output voltage:

- 7.5-75kV (Tap 1)

- 1.5-7.5kV (Tap 2)

System Output Current:

- 67mA

7100-5-D149-^-B System output voltage:

- 10-100kV (Tap 1)

- 2-10kV (Tap 2)

System Output Current:

- 50mA

^ Designate input frequency '5' for 50Hz input tor '6' for 60Hz input

* Designate input voltage. 'A' for 120 V input or 'B' for 230 V input

TF-2-# 2" diameter electrode TF-1-# 1" diameter electrode TF-.50-# 1/2" diameter electrode

TF-.25-# 1/4" diameter electrode

-Flat plates .25" thick 4.25" TF-4.25-# wide

-Edges square and ends rounded to .125"

TF-3-# Opposing Cylinders:

-Lower cylinder 3" diameter, .6"

-upper cylinder 1" diameter, 1" thick, with edges rounded to .12"

radius

OB-# Lucite Oil bath

TL-D149-# HV & Grnd, test leads to connect from terminations to alternative

to be replaced with "50" or "75" depending on max test voltage. For a 30kV or 50kV D149 test system a TF or OB "50" test cell must be used.

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750-2-D149-^-*

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